CLAIMS

What is claimed is:

1. A method for making a disk drive, comprising the steps of:

installing a lower voice coil motor magnet;

installing a head positioner assembly, wherein a coil is interconnected with said head positioner assembly;

suspending an upper voice coil motor magnet above said lower voice coil motor magnet;

magnetically aligning said upper voice coil motor magnet with said lower voice coil motor magnet during said suspending step; and

executing a first supporting step comprising supporting said upper voice coil motor magnet above said lower voice coil motor magnet after said magnetically aligning step.

2. A method, as claimed in Claim 1, wherein:

said suspending step comprises allowing said upper voice coil motor magnet to move only within a reference plane for said magnetically aligning step.

3. A method, as claimed in Claim 1, wherein:

said suspending step comprises allowing said upper voice coil motor magnet to both translate and rotate within a single reference plane for said magnetically aligning step.

4. A method, as claimed in Claim 1, wherein:

said suspending step comprises maintaining said upper voice coil motor magnet in parallel relation with said lower voice coil motor magnet during said magnetically aligning step.

5. A method, as claimed in Claim 1, wherein:

said suspending step comprises coupling a first fixture and a second fixture with a plurality of compliant members, wherein said first fixture is maintained in a stationary position during said magnetically aligning step, wherein said upper voice coil motor magnet is engaged by said second fixture, and wherein said magnetically aligning step comprises elastically deforming at least one of said plurality of compliant members to allow said second fixture and said upper voice coil motor magnet to move for said magnetically aligning step.

6. A method, as claimed in Claim 1, wherein:

said suspending step comprises suspending said upper voice coil motor magnet from a first fixture using at least two elongate members.

7. A method, as claimed in Claim 6, wherein:

said magnetically aligning step comprises exerting at least one of a bending force and a torsional force on each of said at least two elongate members.

8. A method, as claimed in Claim 6, wherein:

said at least two elongate members are attached to said first fixture and a second fixture, wherein said second fixture is detachably engaged with said upper voice coil motor magnet for said suspending step and said magnetically aligning step.

9. A method, as claimed in Claim 6, wherein:

said at least two elongate members comprises first, second, and third wires.

10. A method, as claimed in Claim 1, wherein:

said suspending step comprises maintaining said upper voice coil motor magnet and said lower voice coil motor magnet in parallel relation.

11. A method, as claimed in Claim 1, wherein:

said suspending step comprises providing a first resistance to a movement of said upper voice coil motor magnet along a first axis toward said lower voice coil motor magnet, and providing a second resistance to a movement of said upper voice coil motor magnet in a first reference plane that is perpendicular to said first axis, wherein said second resistance is substantially less than said first resistance.

12. A method, as claimed in Claim 1, wherein:

said suspending step comprises providing a resistance of no more than about 0.03 Newtons to a movement of said upper voice coil motor magnet within a horizontal dimension for said magnetically aligning step.

13. A method, as claimed in Claim 1, wherein:

said magnetically aligning step comprises orienting magnetic field lines extending between said upper voice coil motor magnet and said lower voice coil motor magnet so as to be parallel with an axis about which said head positioner assembly moves during disk drive operations.

14. A method, as claimed in Claim 1, wherein:

said magnetically aligning step comprises increasing a verticality of magnetic field lines extending between said upper voice coil motor magnet and said lower voice coil motor magnet.

15. A method, as claimed in Claim 1, wherein:

said magnetically aligning step comprises minimizing a non-vertical component of a magnetic field extending between said upper voice coil motor magnet and said lower voice coil motor magnet.

16. A method, as claimed in Claim 1, wherein:

said magnetically aligning step comprises maximizing a vertical component of a magnetic field extending between said upper voice coil motor magnet and said lower voice coil motor magnet.

17. A method, as claimed in Claim 1, wherein:

said magnetically aligning step comprises limiting a movement of said upper voice coil motor magnet to within a plane that is parallel with said lower voice coil motor magnet.

18. A method, as claimed in camp Claim 1, wherein:

said magnetically aligning step comprises using only magnetic forces to move said upper voice coil motor magnet to a magnetically aligned position with said lower voice coil motor magnet.

19. A method, as claimed in Claim 1, further comprising the steps of:

executing a second supporting step comprising supporting said upper voice coil motor magnet above said lower voice coil motor magnet before said suspending step; and

lifting said upper voice coil motor magnet to terminate said second supporting step and for execution of said suspending step.

20. A method, as claimed in Claim 1, further comprising the steps of:

lowering said upper voice coil motor magnet after said magnetically aligning step, wherein said lowering step is in a direction that is perpendicular to a plane in which said upper voice coil motor magnet may move during said magnetically aligning step, wherein said first supporting step is executed after said lowering step.

21. A method, as claimed in Claim 1, further comprising the steps of:

executing a second supporting step comprising supporting said upper voice coil motor magnet above said lower voice coil motor magnet before said suspending step;

lifting said upper voice coil motor magnet to terminate said second supporting step and for execution of said suspending step; and

lowering said upper voice coil motor magnet after said suspending step, wherein said lowering step is in a direction that is perpendicular to a plane in which said upper voice coil motor magnet may move during said magnetically aligning step, wherein said first supporting step is executed after said lowering step.

22. A method for making a disk drive, comprising the steps of:

installing a lower voice coil motor magnet;

installing a head positioner assembly, wherein a coil is interconnected with said head positioner assembly; and

moving an upper voice coil motor magnet to a first orientation relative to said lower voice coil motor magnet using a magnetic field between said upper voice coil motor magnet and said lower voice coil motor magnet, wherein said upper voice coil motor magnet and said lower voice coil motor magnet are maintained in parallel relation during said moving step.

23. A method, as claimed in Claim 22, wherein:

said moving step comprises improving a magnetic alignment of said upper voice coil motor magnet to said lower voice coil motor magnet.

24. A method, as claimed in Claim 22, wherein:

said moving step comprises magnetically aligning said upper voice coil motor magnet with said lower voice coil motor magnet.

25. A method, as claimed in Claim 22, wherein:

said moving step comprises increasing a verticality of magnetic field lines extending between said upper voice coil motor magnet and said lower voice coil motor magnet.

26. A method, as claimed in Claim 22, wherein:

said moving step comprises minimizing a non-vertical component of a magnetic field extending between said upper voice coil motor magnet and said lower voice coil motor magnet.

27. A method, as claimed in Claim 22, wherein:

said moving step comprises maximizing a vertical component of a magnetic field extending between said upper voice coil motor magnet and said lower voice coil motor magnet.

28. A method, as claimed in Claim 22, wherein:

said moving step is executed entirely within a reference plane.

29. A method, as claimed in Claim 22, wherein:

said moving step uses only said magnetic field.

30. A method, as claimed in Claim 22, further comprising the step of:

suspending said upper voice coil motor magnet above said lower voice coil motor magnet, wherein said moving step is executed during said suspending step.

31. A method, as claimed in Claim 30, wherein:

said suspending step comprises allowing said upper voice coil motor magnet to both translate and rotate for said moving step.

32. A method, as claimed in Claim 30, wherein:

said suspending step comprises coupling a first fixture member and a second fixture member with a plurality of compliant members, wherein said upper voice coil motor magnet is engaged by said second fixture, wherein said moving step comprises elastically deforming at least one of said plurality of compliant members.

33. A method, as claimed in Claim 30, wherein:

said suspending step comprises suspending said upper voice coil motor magnet from a first fixture using at least two elongate members.

34. A method, as claimed in Claim 33, wherein:

said moving step comprises exerting at least one of a bending force and a torsional force on each of said at least two elongate members.

35. A method, as claimed in Claim 33, wherein:

said at least two elongate members are attached to said first fixture and a second fixture, wherein said second fixture is detachably engaged with said upper voice coil motor magnet for said suspending step and said moving step.

36. A method, as claimed in Claim 33, wherein:

said at least two elongate members comprise first, second, and third wires.

37. A method, as claimed in Claim 30, wherein:

said suspending step comprises providing a first resistance to a movement of said upper voice coil motor magnet along a first axis toward said lower voice coil motor magnet and providing a second resistance to a movement of said upper voice coil motor magnet in a first reference plane that is perpendicular to said first axis, wherein said second resistance is substantially less than said first resistance.

38. A method, as claimed in Claim 30, wherein:

said suspending step comprises providing a resistance of no more than about 0.03 Newtons for execution of said moving step within a horizontal dimension.

39. A method, as claimed in Claim 30, further comprising the steps of:

executing a first supporting step comprising supporting said upper voice coil motor magnet above said lower voice coil motor magnet;

lifting said upper voice coil motor magnet to terminate said first supporting step and to initiate said suspending step; and

lowering said upper voice coil motor magnet after said moving step and with said upper voice coil motor remaining in said first orientation, wherein said lowering step is in a direction that is perpendicular to a plane in which said moving step is executed; and

executing a second supporting step comprising supporting said upper voice coil motor magnet above said lower voice coil motor magnet, wherein said second supporting step is executed after said lowering step.